

474-491

ALL BILLS SETTLED MONTHLY.



Messrs G. Dwyer

IN ACCOUNT WITH

L. J. Smith

PROVISIONS,

CONSTANTLY ON HAND

Beef, Pork, Mutton, Lamb, Poultry,
TRIPE, SAUSAGES, HAM,
LARD, PIGS' FEET, LIVER, &c.

Also, Fresh Fruit and V-getables

Of all kinds in their season, at lowest cash prices.

Goods delivered promptly, free of expense.



474

matron tubercle (all alike)

ant.

Hyperichia is
on Sophora at
Keene Valley N.H.
July 5, 1894 Stage I
Tubercle i with en-
larged base, ii
with no base, iv

and v consolidated, from single
enlarged base (vi absent). On 5 and
6. vii a with enlarged base (vii b
absent) vii c and viii with no base
On 11-13 ant vii c is absent and
on 13 ant viii also disappears.

12 like picture except bases of i
consolidated half way up. On 13
and there is (1) a fuscous dorsal prod. (2)
a long base and, (3) no prod each
with crown and single seta, iv+v
is absent there being a space, and
below it the single vii. (See alcohol
for thorax)

* later to dull crimson

475

Noctuid in stem, large July 8, K.V. N.Y.
Flattened, broad, 5-6 and 12 a little
enlarged, smooth, seg. incision deep
and folded oblique, segs. rounding.
Hd. and rather flat, green with 2
black lines on each lobe, on front base
of jaws, the other behind ocelli. w. 2 +
Body soft yellowish leaf green, the feet
and 3 dots each side on 2 black.

horns geminate d, and broken stig
white lines. A broad white s-d
widened oblique in the ant. part
of segs. 5-12, suggesting oblique
bands in connection with the
broken parts of stig line which are
disjointed by the slight obliquity
of the segments. Spiracle sandy with
black rim. A sandy s-bands 5-10
on 2-4. Late s-d band breaks into oblique
yellow patches narrowly connected in an
ad-d. line. In A body changed to brownish
cent in B a wine brown patch on 3-12 just
behind the oblique yellow s-d marks

| | | | | | | | | |
|-------|-----|------|----|-------|---------|---------|---------|----------------|
| Calc | .3 | .4 | .6 | .86 | 1.23 | 1.75 | 2.5 | $\frac{7}{10}$ |
| Found | .25 | .4-5 | .7 | 1-1.1 | 1.2-1.4 | 1.8-1.9 | 2.4-2.6 | |

476

Acronycta in high (B446B) sample hd
1.8 July 1894. Hd lobed rounded, green
with pale setae, no angles nor tubercles
Body black round, 12 a little enlarged,
seg. increases well marked. Vent

476
 Little acromyza on Mt Ash, yet with
 June 23 '95
 II green, wings in broad white, hd white
 Hairs black & white very long, wings
 hd lobes as usual. 12 □ wings corio
 many eggs laid. Hd 1 ±
 June 27 Pale green, broken white
 line along ii. Hairs very long. June 28,
 as before Hd 1.4 ± (sh hd 1.2)
 July 1 Hd 1.8 ± Same. Late d space
 blackish in dotted, faint, purple
 brown color ii almost continuous
 on 3-5
 July 7 Hd 2.5 ± green a brown shade (moss
 down 15, fading into dark black dots below
 green. Body light green a pink yellow line
 (ii) between which d. shaded slightly with
 blackish; light brown all over by

colorless, ocelli black
Molt July 10. Hd shining, bristled green,
a reddish brown streak on vertex
of each lobe; ocelli and join dark
w 2.6 mm shiny, steep elevated

With acromycta on wet ash, 9th ult
June 23 '95

II green, venter is broad white, hd white
Hairs black (white) very long, venter
hd lobes as usual. 12 \square venter come
over 4 venter hairs. Hd 1.2

inst 2 June 27 Pale green broken white
trace along ii. Hair very long. June 20,
as before Hd 1.4 \pm (sh hd 1.2)

inst 3 July 1 Hd 1.8 \pm Same. Late d space
blue black in dotted part, purple
brown color is almost continuous
on 3-5

molt July 7 Hd 2.5 \pm green a brown shade over
dorsal, fading into dark blue black dots below
dorsal. Body bright green a faint yellow line
on forewings which d. glaucous slightly venter
blackish. Light brown all over by

a broken yellowish d. line. 120 a
little high. Brown shade runs to 13.
members fainter in 1 ex than another, this
had d. shading blackish brown.

Turned hind purplish to J

July 13 1895

acuminate hook

whitish foot green ~~II~~ a row of white red spots (ii) warts crown of setae. Hd 7 ±

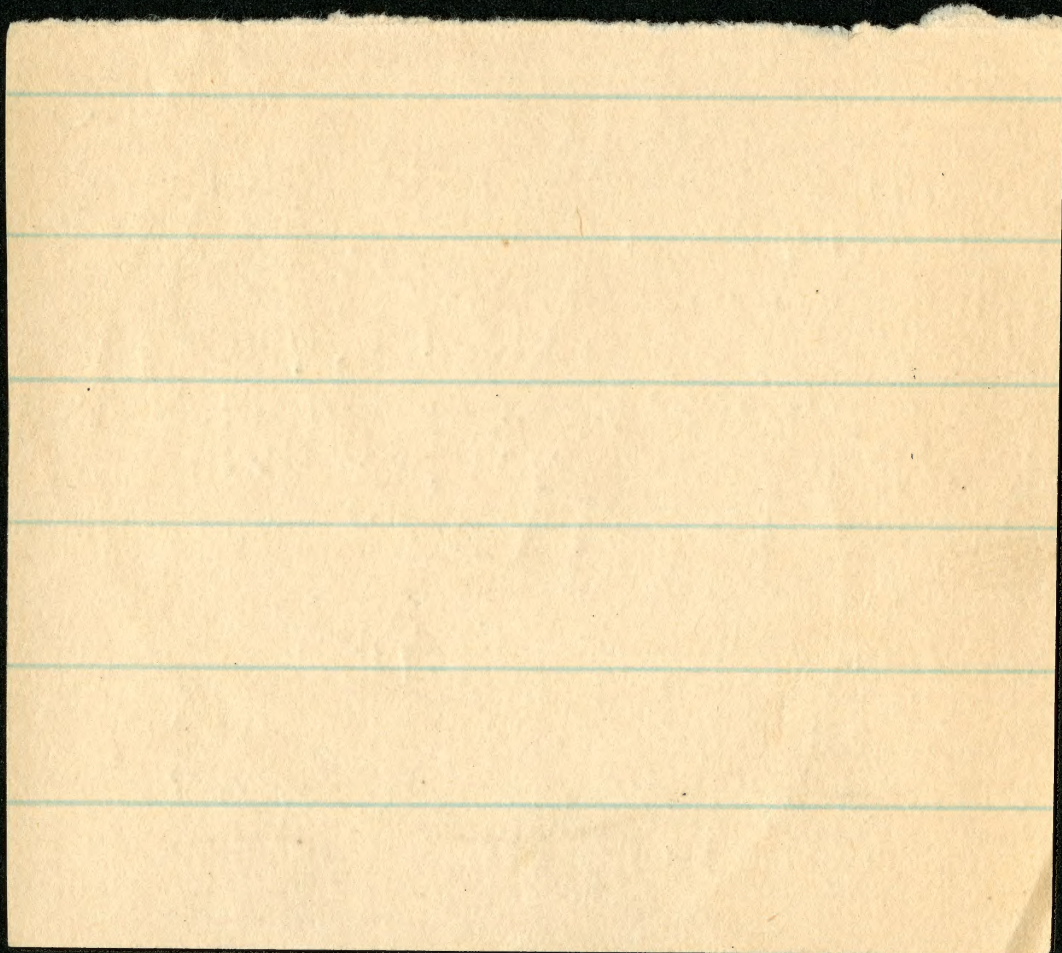
July 11 Hd 1.4 same. White patches before
i & ii distinct, somewhat oblique. Glands
show plainly, whitish, d-m 9. a few short
pale scattered 2 hairs each d. Hair dark
d. cervical from a wart, pale s-v. Hair as usual

Hd 5 Colored. foot green ~~II~~ pair white spots ably ii
warts with 1 or 2 setae a crown of short warts

July 24 Hd 2.4 = *M. fragilis* 476

July 30 Hd a faint brown tint all over
to brown mottling down front.


Body like 476



Molt July 14 Hd 1.1 Same

Molt July 20 Hd .7 white spots along ii.

Little acronycta on Apple Jefferson Highland
N.H. July 12 1895

Egg (shell) Flat  round, arched with
thin like margin. Ridges distinct, some
confluent as they draw to vertex, wavy
some 60 around edge; microstyle irregularly
ridged. Cross lines just perceptible in
certain lights. Shell colorless whitish D.7
Stage I Body glaucous colorless, for green. Tubercles
colorless. 12 □ single long haired, hair pale
Tubercles normal, i-v vi not seen leg plate
concolorous with 8? setae. Hd .25 ± Molt July 15
Hd .4

Herring

DR. PROFIT AND LOSS

May 1, 1894.

To **STOCK OF SAFES** on hand, as per Inventory this date.....

May 1, 1894, to April 30, 1895.

| | |
|--|-----|
| " MATERIALS AND FUEL used in Manufacturing..... | |
| " LABOR , in Manufacturing..... | |
| " COST OF CONSTRUCTING WORK , outside of Factories..... | |
| " FREIGHT AND CARTAGE | |
| " RENT — of Factories..... | 61. |
| of Stores | 36 |
| " SALARIES — | |
| Officers, Superintendents & Attorney, | 32 |
| Managers of Branches..... | 26 |
| Salesmen..... | 77 |
| Office Help..... | 46 |
| " TRAVELING EXPENSES — | |
| Officers and Directors | 5 |
| Salesmen | 48 |

Stage ~~III~~ IV Hd 1.3 Same, darker green but
still pale. S-d line rather distinct, yellowish
white, along II, broken on segs. 3-13. Small hairs
on venter longer, pointed. Warts normal, IV small
inconspicuous & obscure. a few fine short pale 2d
hair sv. Lg. plates hairy. Hair mostly pale,
a few of the dorsal dark. (Hd 1.2)
Bristle ~~IV~~ 13 Hd 1.8 Same. Long hair dark d, pale 1-12

Wetted, yellowish, mottled on the segs. center brown
3-13. gater! tubercle absent
(over)

April, 1895.

DOCKS,

.....

entals,

.....

UNT...

as per

.....

e year

\$1.05

2.5 ± = 476

(Put out)

4 2

later to dull crimson

475

Noctuid in stem, large July 8, K.V. N.Y.
Hatched, broad, 5-6 and 12 a little
enlarged, smooth, seg. incision deep
and folded oblique, segs. sanding.
Hd not rather flat, green with 2
black lines on each lobe, on face base
of jaws, the other behind ocelli. w. 2 +
Red segs yellowish leaf green, the feet
and 3 dots each side on 2 black.

hairs geminate d, and broken stig
white lines. A broad white s-d
widened oblique at the ant. part
of segs. 5-12, suggesting oblique
bands in connection with the
broken part of stig line which are
disrupted by the slight obliquity
of the segments. Sprinkle sandy with
black lines. A sandy shade 5-v
on 2-4. Late s-d band breaks into oblique
yellowish lines narrowly connected in an
ant. line. In A body along d to brownish
ant in B a wine brown patch on 3-12 just
behind the oblique seg. on 3-12 just

Cale .3 .4 .6 .86 1.23 1.75 2.5 $\frac{7}{10}$
Fund .25 4-5 .7 1-1.1 1.2-1.4 1.8-1.9 2.4-2.6

476

~~Acronycta on birch (B4446B) sample hd
1.8 July 8 1888. Hd lobes rounded, green
with pale setae, no angles, no tubercle.
Body dark brown, 12 a little enlarged,
seg. incisions well marked. Went
small, with few hairs, normal
it apparently with no hair: vi quite
large. Hairs long black from i-iii
shorter and white from v and vi
Red green, a broad yellow s-d
line covering ii and broken in the
seg. incisions. (Hd 1.9)~~



~~[Stage II all whitish, food green. Hair
few - on v, normal vi present
ant rather elevated. Hair pale
some black on d, small. Hd 4 +
colorless ocelli black.]~~

~~July 10 Hd slight lobes, green,
a reddish brown shade on vertex
of each lobe, ocelli and jaw dark
w. 2.6 mm shiny, legs elevated~~

Catkins on Mt. Ash Aucoble Lake, Aug 5

at 4-7 in front of ~~red~~ ^{blue} ~~light~~ ^{dark}
dorsal up, 12 a little enlarged.
Horn 1 dorsal large, iv-vi small
but normal, hair very few black
i-iii pale the rest with a few
black fine dark 2^d hair. A broken
series yellowish white s-d line
along ii, i shaded with brownish
purple in the area just around
it especially on 12 but all the
shading rather faint. Spiracles
dark brown, small. ^{Aug 11} One saw under
the shading may be more extensive
reaching upper side of ii and suggesting
a filling in of s-d space as in young
radcliffei which it would then very
closely resemble if not be identical:
with only a little brown line around i
[smaller than 492, 12 not sharply angled
head more green, s-d space not all filled in]
Came out R⁹⁵ Catnos. 1150V-1
Microvelia papilio

477

Microvelia possibly testacea in white
brick, Keene Valley, N.Y. July 9 1894
Like 7. pallida except the dorsal
patch forms a narrow band on 4-5
and 11-13, widening out regularly
to 5-V ridge on 8 with scalloped
edge. ³  ¹³ 

Outline elliptical, head below 2, 2 below 13
13 slightly gradate but hardly
noticeable. A slight s-d and
considerable s-s ridge. A
series of black impressed spots in
pale semi-circular areas, dorsally,
another lateral, a series of similar
impressed pale areas each with
s-d ridge and one above s-s ridge
ridge, a little alternating with
the black dots. 2 region narrow,
lateral a little concave, s-v
region small perpendicular
Smooth, minutely watery granular

leaf green, spiracles yellow. a
dorsal band dark purplish, bordered
with a crimson line and a
yellow shade begin broad on
joint 3, narrow to a band at
joint 4. space 4-5
narrow, indents 6-8 with a brist
point reaching the lat. black
dot on 7*, reaches S-V ridge on 8,
narrow, a point to lat. dot
on 9† and fills d. space 10-13
Between the d. spots 7-9 an ell-
iptical salmon colored shade.
peris, filling dorsal space
a white line bordering venter
Head green, ocelli black, mouth
brownish. 9.5 x 5.5 x 3 mm.
(Another without post. tooth of band
" " * (any teeth on band)
all the 'crops in Keene valley
were this species! (see 88484)

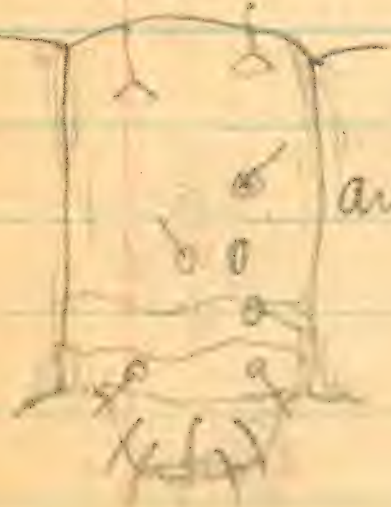
C. cinerea

478



Little forked on
poplar K.V. N.Y.
ant. Hatched July 11 894
dark blackish brown
S-V region and a
rounded d. patch on
3-5 and 8-10 yellow

Tails twice annulate with white
C-hairs spinose, light red, base of
tails and anal pl. paler than body
w. hd. 4 ± mm, horns 8, body 2.5, tail 3 mm
met July 16 Hd blackish brown



a brown black lateral
band connected on 2
ant 6 post 7, 11 and anal
plate, the rest
yellow feet pale
whitish. Tails

brown-black with 2 white rings
Horns black, spinulose as also tails
Tubercles prominent but setae short

Tails 4 mm long. Horns 6 mm.
 molt July 21 at first the same.
 On July 25. Hd purplish black. Body
 green a little yellowish d. A purple
 blackish patch on 2-3 connects by a
 faint sd line to a large patch 6-9
 which reaches spiracles and under
 an irregular green space d on 9;
 sd line to a patch on 11 and again to
 one on 13. Tails 6 mm with 2 yellow
 rings. i & ii black connects very
 prominent in the purple markings.
 Setae short, and mostly pale, mixed
 except 4 setae in 5 line in place of
 vi and 10 w same as the leg.
 Horns 6 mm, tails 6 mm, spines
 molt July 27 Same at first. Tubercles as

1
 80
 2
 100
 100
 100

before, one of the 4 in base
 of legs no setae
 (July 29) A purplish blackish
 or dark patch 1 on
 2-4 and; broken on

large patch 5-10 with spiracles on 8,
 a smaller patch 10 post, 12 and,
 and a 4th on 12 post and 13, narrow-
 ing on anal plate. Reddish

for
 lar
 tail
 me
 can
 see
 II
 are
 on
 post
 out.
 pro
 see

| | | | |
|------------------------------|-----|-----------|---------|
| No. 934 | New | WHITE, MC | No. 6 W |
| Pay to the order of Harrison | | | |
| One | | | \$ |

which this corroborates. Horn smooth
 a slight fold on 3 post. dorsally
 Setae represented by purple
 ant dots 5-V.

10

No. *954*

New York, *July 1, 1895* 188

WHITE, MORRIS & CO.

No. 6 Wall Street.

Pay to the order of *Harrison E. Dyar*

On Dollars.

\$

A fork on P. terminalis & Jefferson Highlands.
Egg Like 316. Micropyle less shiny than egg
after a little pointed with a small depressed
ring forming a slight apical button. Pits
elongate, flat, surface a little pitted.

Hatched July 3. Visions black, 2 yellow green
d. patches 3-5 8-10 and very sharp edged
Feet & venter pale, tail 2 white rings. Structure
normal. D. tubercles pale.

molting July 9 Like 316 but a pale d. patch on
12 and patch not on 2. Nothing essential?
Patches wider, forming a broad s.d. band connected
over d. on 2, 6-7, 11 and 13. S-V & venter green

molting July 17 Not like 316 but essentially as
before. a s.d. band connected over dorsum on
2-3, 6-7-8 and 11 and 13, also a shade
on 9 post. Ground greenish yellow, tail
2 yellow rings. Hd & horns dark brown.

July 21 the s.d. lines have definitely faded
leaving a d. patch 2-4, s.d. connected to
another 6-10 blotched into a s.d. 11-12
and fourth 12-13 narrow connected. Large
2d patch pale centrally. Body green. (cf 478)

molting July 22 Like 478 IV Patches at
first all dark blackish setae spines
Hd venter yellow dotted on upper 3
except 2 lines 11 to median anterior.

molting July 29 = 478 V Spot in 3d
patch orange, not yellow.
C. cinerea

Tails 4 mm long. Horns 5 mm

Molt July 21 as first the same.

On July 25 - Hd purplish black. Body green a little yellowish d. A purple blackish patch on 2-3 connected by a faint red line. A large patch 6-9 which reaches spiracles and includes an irregular green space d on 9; red line to a patch on 11 and again to one on 13. Tail black with 2 yellow rings. i & ii black curved very prominent in the purple markings. Setae short, and mostly pale, worn except 4 setae in a line in place of vi and 10 w more on the leg.

Horns 6 mm, tails 6 mm, spurs

Molt July 27 Same at first. Tubercles as



before, one of the 4 on base

1 leg bears one seta

(July 29) A purplish blackish or dark patch on

2-4 and; broken on

large patch 5-10 with spiracle on 8, a smaller patch 10 post, 12 and, and a 4th on 12 post and 13, remaining on anal plate. Reddish patches appearing already in the large patch; ends green dotted yellow

Tails 7 mm; horns 1 mm. hd 2.2 mm

Molt July 31 (Aug 5) Hd blackish brown, pale centrally, greenish at sides. Setae setae

scarcely perceptible. Patch I on 2-3, II on 4 post-9, mixed on edges and centering

irregular yellow spots s.d.; broad on 10, patch III on 11, narrow on 12

patch IV on 12 post-13. Sides green outside yellow border with many

purple brown spots and patches. See the description of *Cerura cinerea*

which this corroborates. Horn smooth a slight fold on 3 post. dorsally

~~Setae represented by purple~~ ant dots 5-V.



of European *Lepidoptera* (Pulmon. Near
End of Nov 1886. 160)

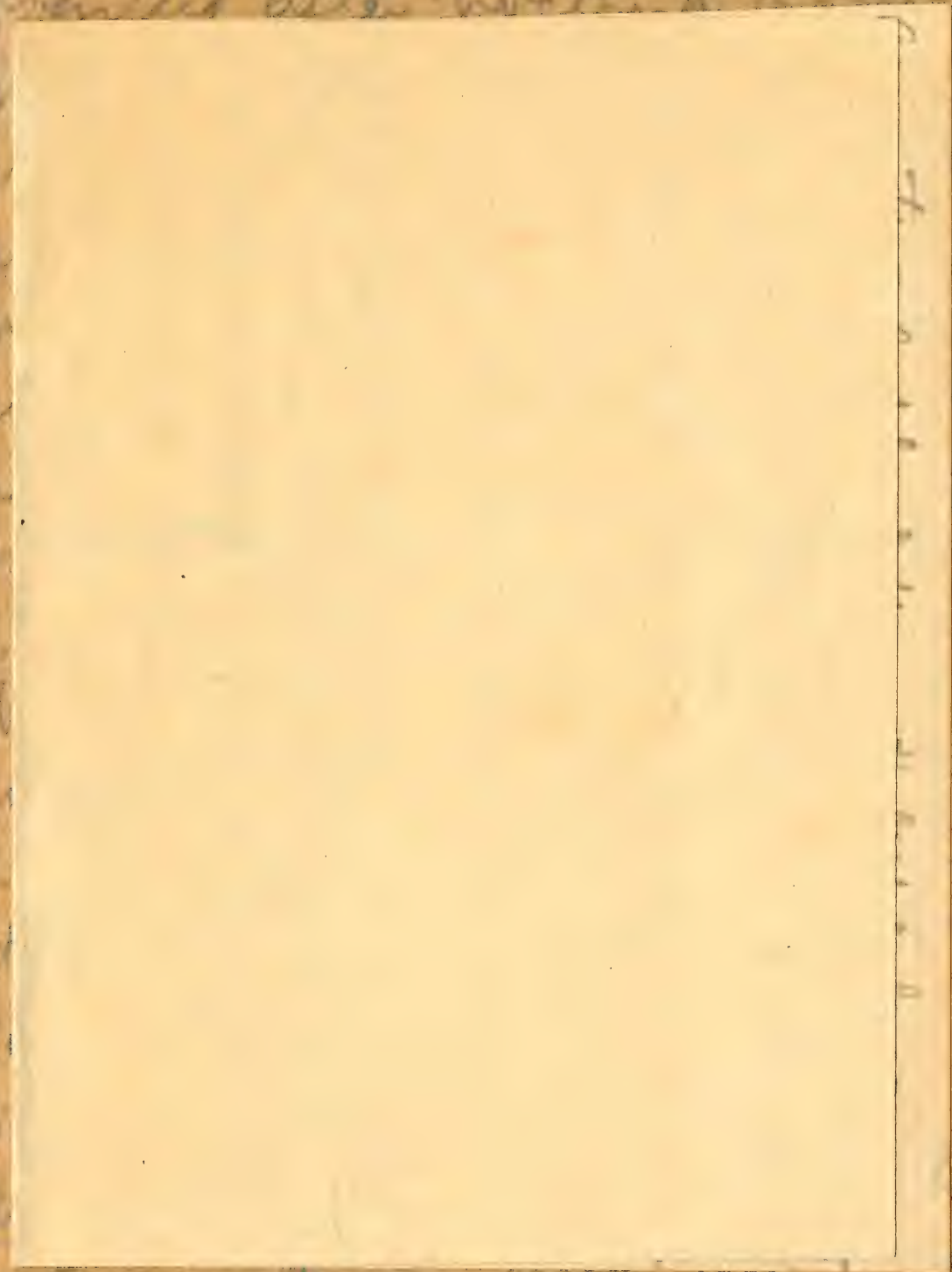
479

White *Acronycta* on willow I. style
Hd full rounded, scarcely lobed
shining white, immaculate, w. 2.6±
Body white, faintly tinged with
green, hairs very long, fine, curling
a little, abundant but not con-
cealing body white, a very few
short black ones d. from 2, 6, 7 & 13
warts rather large but low and
inconspicuous, normal. Secondary
hairs present but fine, difficult to
be sure in account of the abundant
long white primary ones. (The hd 2.6)
Other same size, on poplar and white
buds have small but distinct
black spots on 5, 7 and 12.)

Nov 18 Hd 4.5 Greenish white, nearly
immaculate, a little blackish mark-
ing in middle of each lobe. Body
purish white, hairs abundant
very long and very curling, over

479B? 476A

on birch, hatched July 13, 1894
Low, flattened, round, with
flat projecting base, but
rounded after hatching.



but considerable ones
distinct, hairs slightly
very long black, then
just before pupation, some
white or turned some + black hair

Acronycta on *Populus jeffersonii* L. Molt July 22.
Hd 1± all white. white large hair long abundant
white under a few stiff black ones d. whole
length. No secondary seen.

Molt July 23 Hd white with black spotting in a vertical
line on face of each lobe. w. 1.4 mm. Body white
hair abundant white. Black pencil 5, 7, 12
molt large canoles, 2 hair few but present
5th 1-stylet.

Molt July 29 Hd white with a black mottled
streak up each lobe. Black pencil on 5, 7, 8
& 12 with a d. black spot on 9 indirectly
another pencil. Hair white. Either =
populi or *vulpina* (Sh. hd 2.4)

Molt Aug 3 Same. Hair curve over like
vulpina but pencil distinct. Hd white
the black bands up, face as before

Molt Aug 8 Hd white, Body white with a black
spot where the pencil was. Hair white long
curving over, no black hair. = *vulpina*

of European *Leporena* (Malton 7111)
East Pa Nov 1886 160)

479

White *Leporena* on willow I-style
Hd full, rounded, scarcely lobed
shining white, immaculate, w. 2.6+
Body white, faintly tinged with
green, hairs very long, fine, curling
a little, abundant but not con-
cealing body, white, a very few
short black ones d. from 2, 6, 7 & 13
vents rather large but low and
inconspicuous, normal. Secondary
hairs present but fine, difficult to
be sure in account of the abundant
long white primary ones. (Th hd 2.6)
Other same size, on poplar and white
birch have small but distinct
black pencils on 5, 7 and 12)
July 18 Hd 4+ greenish white, nearly
immaculate, a little blackish mark-
ing in middle of each lobe. Body
greenish white, hairs abundant
very long and soft curling over

-479B? 476A

Egg on birch, hatched July 13, 1894
Low, flattened, round, with
flat projecting base, but
marked after hatched pattern
with white pointed ridges and
cross striae. A large flat area
at micropyle is surrounded by an
angular ridge from which
about 12 ridges start down mar-
ginaly, as the pupa gets larger
these are interpolated till the
number reaches 90 & more at
base of egg, all narrow and
curved at the angle by
slight cross ridges. These are
the cellular ridges, rounded off
surface otherwise smooth.
diam. 1.5 mm, height 3 mm
Hatched pupa large, could
not conceal and not easy
to distinguish, hair as long
very long, black, the
a few of feet, some up. 5
white or turned some + black hair July 25

of European *Lepidoptera* (Poulton) near
 Ent 8

normal, vi absent. none
 noticed on ly. color entirely
 translucent colorless & slightly
 whitish, no markings, eyes
 black. Frs. showing through
 w. lid. 45 ± mm

Unfolded 8 Hair long silky white
 those from i black whole length
 not white body white with
 black yellowish tinge. Vents
 low and obscure. W lid. 6 ± mm
 died
 { Ant = 479 }

Calc. 4.0, 2.56, 1.64, 1.05, .67, .42
 9-17.64

| | | | | | |
|------|----|----|-----|-----|------|
| 479B | 45 | .8 | | | |
| 479 | | | 2.6 | 4 | |
| JH | .7 | | 1.7 | 2.7 | mat. |
| JH2 | | | 1.4 | 2.4 | |

Calc. 42, .67, 1.05, 1.64, 2.56, 4.0

One last stage had a few bristly black
 hair on 5 & 7

all around, entirely pure white
 vents small white, 2d hair abun-
 dant, rather finer than 1d Late
 hair all pale yellow fine, curving
 a few bristly black hairs on 12 and 13
 Late hair quite bright yellow.
 (Annotated 2.5 hair yellow, soft black
 from 5, 7, 8 and 12)

(One B molted July 21 came out very ^{stayed pure white} shiny
 with no black pencils = 479 shed 2.7
 (Annot. shed 1.6 yellowish with pencils 5, 7, 8, 12
 s. to J style its long soft hair stands
 out all around and then curving over
 even to touch leaf. Body visible
 July 21 - By one toward hind side
 greenish hairs dirty blackish i.e. Body
 dull brown tinged green, dotted with
 yellow. 1st shiny hind brown blackish
 2d brown yellow. Hair olivaceous
 blackish, shading to yellow at tips
 kept on eating. The 1st black
 hair finally quite black except tip. J
 white so turned some black hair July 25

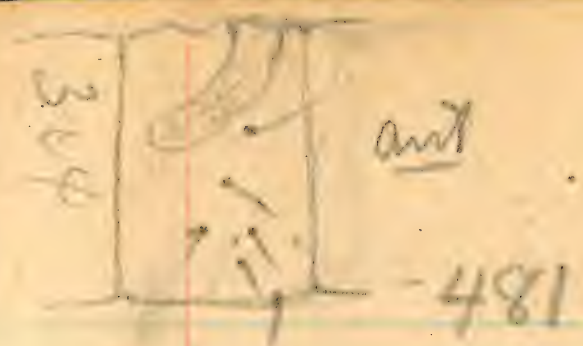


480

Eacles imperialis
hatched July 13
1894 from eggs of
♀ from Westport
N.Y. ii with no
seta except on
12, iv and v con-
solidated on
a single process
except on 12 ant
vi absent On
12 a long process
bearing five setae

with i+i; ii quite long with
seta; iii as in fig.; iv on process, v on
the base, no process; vii a single
seta with no process; viii a single
seta near mid-ventral line.

Last stage: 2, 2 chs, 1 stg, 1 s v; 3-4
four; 5-6 three + viii + viii, 7-10 three
11 no viii, 12 i+ii, iii, iv+V and vi;
13 ant i+ii stg and vii; 14 four



ant

481



ant

Larva of *Micropterus*
probably *purpurilla*
from Dr. T. A. Hop-
kinson, Hereford
England in cocoons
hibernation.

Little *Agoneta* on poplar (trunk) 9th June
20. Hd. 7' slightly bilobed, nearly white
Body white, rather opaque, dorsum of
2, 4, 5, 7-9 & 12 broadly pale purplish
brown; hair black & white mixed, hairs
with a central seta of hairs
iv small (2 setae) vi present, elongate
several setae on concolorous leg plate
with June 21 hair long & fluffy, fine
white down, look like d. col. d. 7
112. Vents large concolorous, but many
of the hairs are secondary. Color of body
as before Hd 1+

479



below 4th seta.
Ant. Tracheae lead
to them. Could
not see any
on other seg.

World journal HD blabes, creamy white
1.7± Body white, scarcely touched
with any brown masses. Hair long
soft with curving, with short
the distal ends of the bristles de-
on 5, 7, 8, 9, 12. Nails
large concave, 2d hair abun-
dant, long. (♀ 38457) subd 2.7

Moltful 1 white, hairless, 5 distinct pencils
as before. hd, 3± white like body
Moltful 8 no black pencils, only a few hairs. Hd
white, a few black hairs. 479. Nipples near mouth

Little Acronycta on poplar (Tremula) 1st June
20. Hd. 7th slightly bilobed, mainly white
Red white, rather opaque, dorsum of
2, 4, 5, 7-9 & 12 broadly pale purplish
brown; hair black & white mixed, Vents
with a chroma & central seta of hairs
is small (2 setae) & present, elongate,
several setae on concolorous legs plate
Wolt June 21 I am having a fluffy, fine
white downy fluff hair d. cat. 7
& 12. Vents large concolorous, but many
of the hairs are secondary. Color of body
as before Hd 13



480

Eacles imperialis

hatched July 13
1894 from eggs of
♀ from Westport

N.Y. ii with no
seta except on
12, iv and v con-
solidated on
a single process
except on 12 ant.
vi absent On
12 a long process
bearing 4 setae

top with i+i; ii quite long with
seta, iii as in fig.; iv on process, v on
the base, no process; vii a single
seta with no process; viii a single
seta near mid-ventral line.

Last stage 2, 2nd ch, 1 stg, 15 v; 3-4
four; 5-6 three + vii & viii, 7-10 three
11 no viii, 12 14, ii, iii, iv+V and vi;
13 ant ii+iii stg and vii; 14 pair



Larva of *Microsternus*
probably *purpuricollis*
from Dr. J. A. Chap-
man, Hereford
England in cocoon
hibernating.

In feet, a double trans dorsal shield
on each seg. could see any apophysis
except on joint 2 where it is on lat.
ridge corresponding to *



Saw a spiracle
on joint 11 and
12 ant. to and
below 4th seta

Ant. Tracheae lead
to them. Could
not see any
on other segs.

| | | | | | | | |
|--------|-----|-----|-----|------|----------|-----|--------|
| Calc.. | .40 | .60 | .92 | 1.4 | 2.1 | 3.2 | wt. 66 |
| BB15 | - | - | - | 1.4 | 2.2 | 3.2 | |
| BB483 | - | .55 | .9 | 1.4 | 2. = 2.5 | 3.3 | |
| BB608 | - | .5 | .75 | 1.3 | 1.9 | - | |
| | | | 483 | = 15 | | | |

482



Mature *Glypta fannus* acromyeta? on beech (= BB15?) Keene Valley, N.Y., July 13, 1894. Tubercles: unpaired 5-12 and the rest as figured. On 13 and 14 a single sd process. The tubercle just

above base of leg, seems to correspond with VII of *Aspilota* segments rather than to a normal VI. Process on each side of head, none on joint 2 sd and lateral only on 3 and 4.

Glypta proper Stage II and seems to show ix and x in line, iv being a process also vi small

Stage I from shed hide. (not shown) but also ii, iv and v must be like this)

acromyeta? on beech (= BB15?) Keene Valley, July 13, 1894. Puparium. Hd whitish w. 5 on ± body translucent. Head showing green. Warts numerous, conical, each with 4-6 coluber hairs, on i and ii the right sd side seems still longer than the others. i and ii nearly in line in 12.

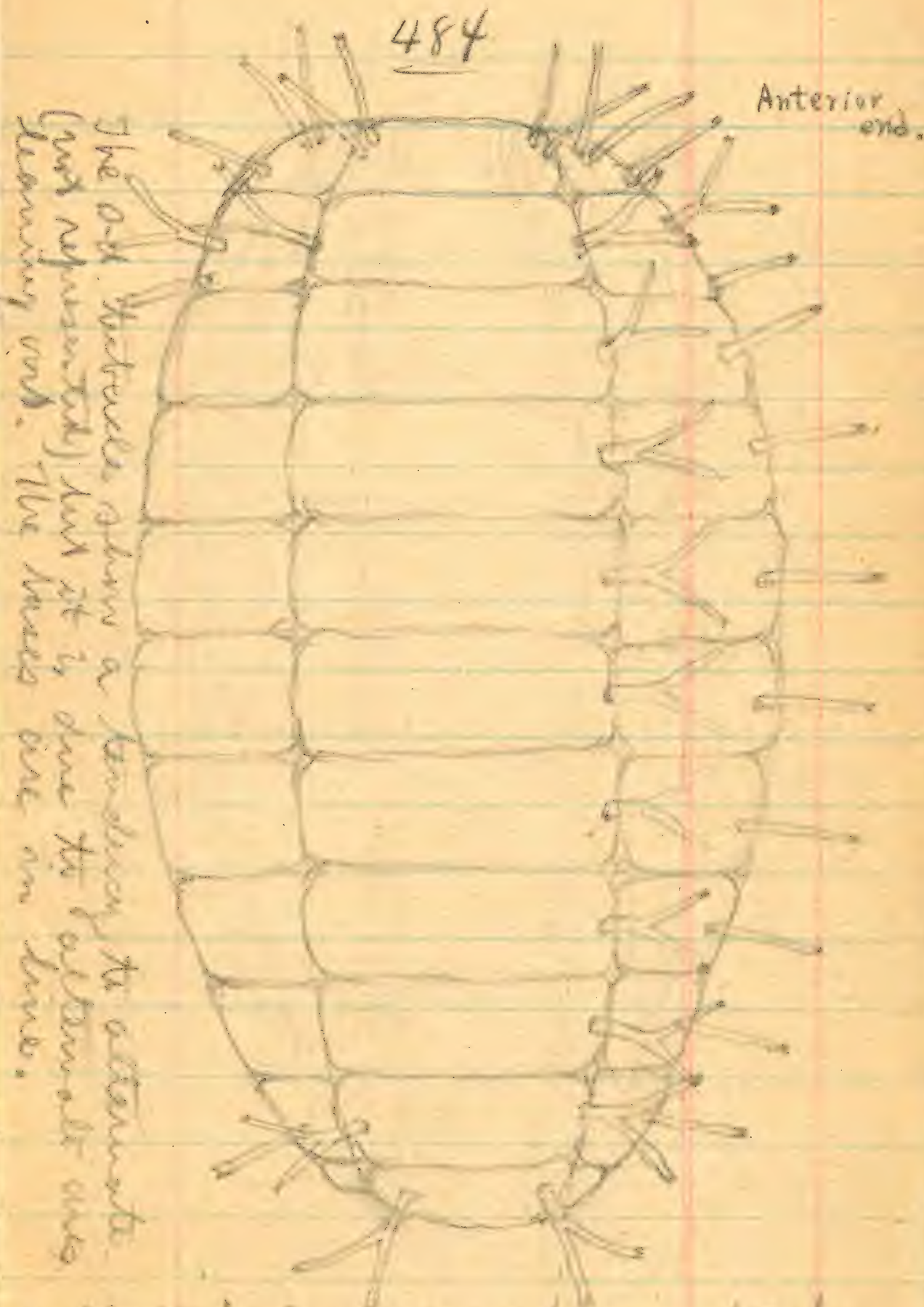
July 14 J. style and 2-headed [Egg? empty in length; hemispherical in base. Well reticulated the vertical ones on elevated bands forming the usual vertical ribs but low and rounded. Cross lines distinct. Cells at apex without ribs and very pinched at micropyle. 8, h. 5] Molt July 15 Hd. All nearly coluber whitish, hairs and all. Some of the tubercles on thorax are more like elevated process than warts. a few grey and 4 secondary hairs. Only few hairs on warts and must



Ameg. May 11 1893
 Cat. no. 11304

of three small. Eyes black, mouth brown.
 July 19. Hd lat like BB15 a suggestion
 of brown smoky on lobes. With the
 lens only one hair on a conical and
 except vi which has several. Under
 $\frac{1}{2}$ in there are a few other hairs but ex-
 tremely reduced being very short. A few
 little spine like 2^d hairs. Warts normal
 a slight yellow area around each ii
 and a broken dotted white line below ii.
 Another hd 2+ like previous stage, number of
 BB15 "Sep 27" not acquired?

July 29. Hd 2.5- like BB15 but d
 distinct reddish line. Body all
 translucent whitish with no mark
 below ii. Tubercles with but one hair
 except vi which has several. Second
 hair all gone (minute pile under $\frac{1}{2}$ in)
 Next July 31. Hd 3.5+ like 15th last stage. Tubercles
 as before. Tubercles large conical with
 the microscopic pile of body like
 hairless warts with only a small seta



a little. Cede 1.5 mm long on high,
 doubtless = *Tetranychus parvulus*, Keen 1894
 July 14, 1894. [Turned out = 477 July 30]

Oct 13 1894

MBT July 14. Tenth resembles *Pulexia*
bilineata in color and position. Sit
with head curled around and anal
end up; 3 or 4 a tooth folded tran-
s. suggesting horns as fold narrow
on d. line; 12 enlarged. Feet unen-
larged. Hd bilobed, whitish mottled with
brown dots esp. over vertex, white
around mouth, ocelli black. Anal
plate rather small, triangular. Body
smooth except for small pale setae
not appressed, variegated with white
and brown - dorsal whitish with
of 2-3, 5-8 and 12 d brown. a

maxilla strengthened and lat. line
with pale lateral member indica-
ting oblique lines. The feet clean
abd. pale. Hd 1 mm & a few very
distinct 2^d setae. One above spiracle
near iii and other (3 or 4) s-v. (see further)

A faint, hand-drawn sketch of a face, possibly a mask or a stylized portrait, with simple lines for features and a rectangular border.

(From still leaves)
Stage III

Pale solid greenish
overarched with brown
of no decided shape
tubercles black set
fine short. Marked
as in next stage but
1 degree various brown
stage but paler. etc.]
Others (Stage 13) have the
pale parts shaded
with light olive green
Larva quite bluish white
first shed, but get very
pale with a yellowish
edge to anal plate

Another stage IV on Rubus odoratus



Left one (4d 3e) 4d slightly
 lobed, nearly black. Body
 covered with fine 3 and 12
 smooth, brown, raised
 uniform brown, rather
 dark. Feet normal, all used in
 walking, but anal pair held up
 in rest. Sit on very edge of leaf or
 on back. Head large. ix and x in
 line with vii. ix is a little higher
 than v and on 12 it is nearly
 as high as v and quite behind spine.
 Anal plate small black.

IV July 19 4d 1.5+ 4d rounded lobed
 white dotted with brown but having
 a streak over lobe especially edged
 3 folded to suggest horn and all
 body quite smooth setae fine and
 pale. Head with velvety brown
 when the latter is oblique 1.5 to
 streaks on 3-8 fold, esp on 12
 a square area 2-4 light brown

feeding in white house, moving down to 5-V white
 eggs 13 white and a pale shade

yellowish white web
 Aug 9

very yellowish leaf, low
 other apex and. Under stage
 under irregular some
 micropyle other not. Cus
 thick 2 times as wide as
 upper, then ends just
 beak-like on the ribs
 similar to micropyle
 white shiny .65 x .5 mm
 of pale reddish brown.



surrounded by a distinct white patch
 which was up of the same seg. 11 and
 12. This part colorless and
 various. Spine a pale graduate station
 on 3-4. More uniform, less contrasted
 than in stage. Spin leaves
 to 12. 2 fine threads. Anal feet not

leg on top of a tooth of yellowish horn leaf and
on the side then apex and. When those
with 14 ribs, under microscope some
eaching microscope other not, Cus
straw distinct, 2 turn as wide as
long, rectangular, the end part
underlying beak-like on the ribs
base white chamber to microscope
yellowish white shiny .65 x .5 mm
Hatched 1st all reddish brown,
to dark feet
pale. ~~some~~
2 weeks
and dark
feet held up
except in
walking.



inst. Aug 1 3.52 pale brown mottled
with white patches & dark brown white
separates in sheets radiating
irregularly from 4; 384 trans folded
12 covered enlarged but 13 small
not elevated; larva in house of larva
color soft deep brown with a brown
black & line, paler S-V with
obscure oblique pale lateral shades
feet brown. Body yellowish brown
finely covered with rounded reticulae
& black brown; the light dots then a
black brown yellowish laterally
forming the oblique shades, defined
behind by a dark shading without
sharp edge. 3-4 & 5 shaded lighter
than general color but on the whole
grey can feel. Setae very obscure. Some
have a light white base spot short

yellowed & of a lighter web
Aug 9

(See 551)

486 = 36

Little Paragrypa on birch, K. V. July 1894
Like *Chrysa*, hair from warts; no
tuft nor retractile tubercle. May
with a white patch on 9 (from memory)
Hd shiny black, mouth pale, w. 4 mm
Wt 1.2 g. Hd black; body densely hairy
red. brs. whitish, large. Hair all feathered
warts large; black plumbed hair 1 d
on 5 and 12 only a few of them
Lateral hairs very long white. Body
blackish warts 1 d on 3 4 & 9 whitish
Wt 1.2 g. July 20 Black pulverulent whitish
1 d (trace) red, and stig line broken
and narrow, most distinct 10-12, the stig
the most complete, a black pencil 1 d
2 long, very short 12 d. From ③ and
⑤ on cervical seg a single plumbed
black hair (i.e. esp 5-8 and 10) Hair from
③ on 3, 4 and 9 short very feathery
("mouldy") white. Thick hairs appressed
from tuft 5-8, black 5-6, shorter

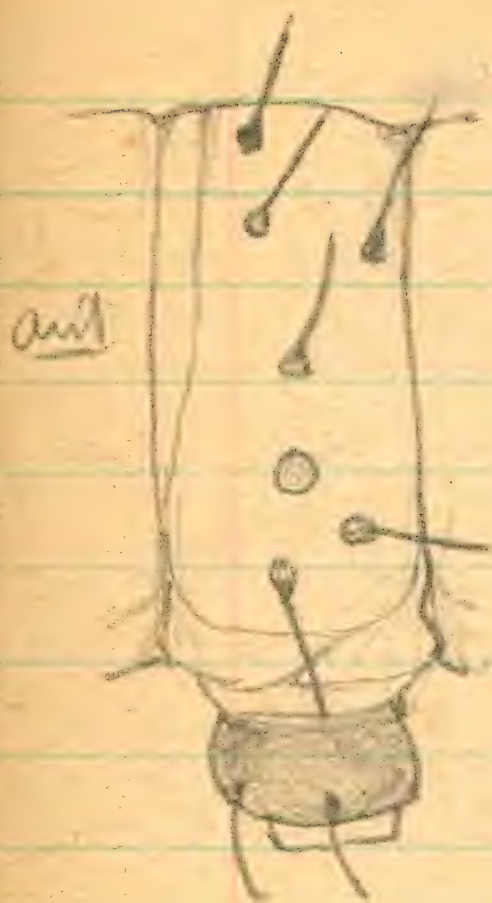
another on elm Aug 20, apparently
hibernating by its shed skin.

and gray 7-8. Other hair short, mostly
pale, a few long black ones at both
ends. Red tubercle dull greenish with
a slight red tint. W. 1.2 mm
Wt 1.2 g. July 26 Hd black 1.6 mm Body black (!)
entirely obscured by the thick plumbed hair
except d on 12 all white as the bristles
reddish red tubercles. Long plumbed black
pencil 1 d on 2 and 13, the latter small
and single plumes along the sides iii and
v (③ on 5, 6, 8, 7, ⑤ on whole length) also a
thick d. tuft 12, all these black as well
as the dense bristles 5 & 6. Other hair i iii
mouldy white mixed with ^{black} bristles: 5-v
hair white strictly barbed but not
mouldy. Long black nearly simple hair
extend over head and back from 13.
Feet and mouth pale.

Wt 1.2 g. Aug 6 Same, but pencil hair on all
5-9 and v as on 5 & 6 but more dense and
plumbed hair 1 d on 5 black, 6 partly mixed
with mouldy white, 7-8 mostly mouldy white
Whole form same, a trifle "messed" Hd 1.7 mm

487

2 Noctuid eating low plants in the woods, Upper Anable Lake July 17 1894
 Hd small as thorax, body bulging just, 12 slightly humped, 13 small. Abd fat on 9, 10 & 13 w/ trace on 7 & 8 the 3 setae vii moderate separated closely like those in 5 & 6 setae normal (Noctuid). Light green, a black line over ocelli along side of head a white stg. line not very distinct and ending at 12 (11/12) with a white line a series of 29 black dots 5-8 just above it. Some faint wavy white lines on dorsum. 5 prolegs white with black lines. Setae black. Hd 2.2 ± (dist.)



488

Danaus archippus on milkweed, Keene Valley, N.Y. Hatched July 19 1894
 very distinct setae, normal except that there are two of each on each side! The fleshy tubercles are represented by little humps, the pair on thorax arise under a tubercle but there are one pair (see fig.)

ratios: .7 (.84) (.91)

Calc. 34 .50 (.59) .73 1.05 (1.24) (1.36) 1.5 2.1

489

Trachy. progre? egg on tip of lobe of wild
gourd leaf upper side, July 22, 1894
elliptical with 8 near, high plate
like ridges, very flat and narrow
marked with vertical thickening
which join the long curving cross striations
Ridges end abruptly near apex before
anacropyle. Dark green, ridges colorless
(locally infested by flies. For
45 on July 30. (Only 2 hatched)
[See 482 for stage II]



Hatched Aug. 5
and i perfectly normal, no-
where single d., ii &
iii normal; but 3 setae
below spiracle except
on 12 where the anterior one of the
double V is absent. In another 12 like
other segs. Ans 11 v. has the 2 setae in line

9 pupae on gooseberry, Jefferson Highlands Mts., July 28 1895-
 Hd 1.2+ Spine ① d. 5-12, Hd black, tubercles with apical
 spines. Spines black with orange bases. Body purplish with
 3 wavy pale obscure lateral lines. Bases of feet orange
 leg plates black. Spines scarcely branched but with stiff
 setae, arranged as in mature larva.

Hd. 2 mm Hd black a little reddish behind, apical of the
 produced tubercles white. Spine orange red at base, the
 color spreading upward, ① except on 7 & 9 and several of ②
 all of the pale color. Bases of spine nearly continuous, at
 least in color in a trans. band. Behind the spine
 on each seg body nearly naked narrow with black
 white, a front a d. 12 oblique lateral black
 line on a white ground. Below spinous irregular
 spotted with black on white ground. Feet blackish

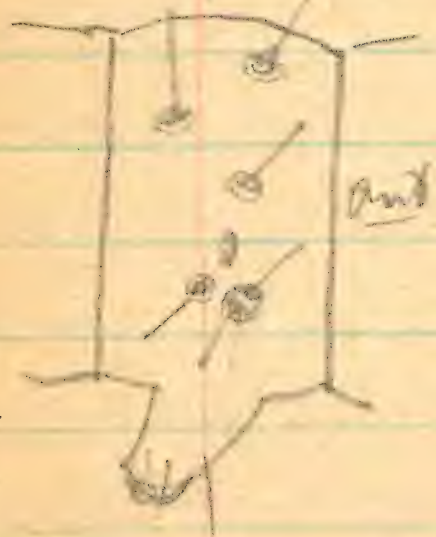
Hd 2.7+ (mature) Hd brown or whitish more or less black
 mottled or even more entirely black; apical spine black
 the numerous produced tubercles white. Body paler than before
 spine ① & ② and then bases with white, pinkish or yellowish
 the black marks as before but narrower, enclosed on the
 the white ground. Bases of ③ & ④ stand in a narrow
 reddish broken wavy line & bases of another s.v. along
 the 2d tubercular vi, breaking up the s.v. color into black
 & white mottlings. Bases of feet dark, the leg plates
 reddish. Spine all white except a few at extremities
 & here & there one of ③ which are pretty or wholly black

Ant Aug 16 1895 S. Mague

ratios: .7 (.84) (.91)

489

Naupha puerile? egg on tip of lobe of wild
gourd leaf, upper side, July 22, 1894
elliptical with 8 weak, high plate
like ridges, very flat and narrow
marked with vertical thickening
which joint the long curving cross
ridges and abruptly near apex before
macrophyle. Dark green, ridges colorless
(heavily infested by flies. For
45 on July 30. Only 2 hatched)
[See 482 for stage II]



Hatched Aug. 5

i perfectly normal, no-
where single d., ii &
iii normal, but 3 setae
below spiracle except

on 12 where the anterior one of the
double V is absent. In another 12 like
other segs. On 11 V has the 2 setae in line.

Call. 35 .50 (.59) .73 1.05 (1.24) (1.36) 1.52.1

35 .50 .60 .70 1.05 1.2 1.3 ±

490

27

Laid by 2 ♀ Callimorpha concolor from
the lighter, Kew Valley, N.Y. laid July 19
spherical with the base a little
flattened, adherent, round smooth
shining darkish yellow; reticulation
obscure in certain light indistinct
very narrow, fine, irregular the
meshes moderately large. D. .7 mm
Hatched July 28 HD shiny black over



the apex of lobes, but
the whole D pale
yellowish; mouth brown
w. 35 mm. Body yellowish
with black, punctate,
warts large, shiny
(blackish, inconspicuous) with
single long setae, nor-
mal vi absent.

Aug 3 Head, col, anal plate,
warts and legs shiny black.
Body whitish with a broad brown



dorsal band iii - iii but
paler centrally, as as
to be almost reduced
to 2 s-d bands. Hair
black & white mixed,
short, bristly. Head

long and slender, a little brownish
obscuring s-v. Width head .5 mm &
Later dorsal, whitish with a yellowish
seg mark just above iv. s-d band slaty
brown connecting d. in incisures.

Sept 9 Hd black; w. ^(hd .6) mm. A broad
irregular grayish white d. line; a
blackish s-d band between ii and iii,
rather irregular. A broad pale band
over iv, marked with yellow above and
under (iv), a grayish s-v shade over v
warts & feet black. Hair short, stiff
not very abundant, black & white mixed

Aug 20 Hd shiny black and warts
body brown black, a broad white d.
line and very narrow s-d one (ii)

a broad bright yellow str. line, indicated
a little by iii & iv between which it
runs. Hair short, bristly in conspicuous
black & white mixed. Feet blackish
venter white in a broad stripe between feet
interrupted only by black vi on 5 & 6.

Sept 5 Black, a rather broad d. line
^{becoming yellowish between ii}
straight, s-d white, very narrow
s-d and s-v pale prolescent lines; a
bright yellow str. line, transverse
streaked on the folds. Feet black, a
broad defined pale ventral band,
mostly white. Hair short, bristly. Black
and white mixed. hd .85 mm sh

Sept 17 Black, warts & hd. ^(hd 1.2) 1.2 mm sh
a distinct yellow d. and str. line, the
latter broader & composed of transverse
streaks on the annulets; trace of a s-v
band, whitish. Warts large, hair very
short but abundant, bristly, black
no s-d line or the nearest trace. Hair
shiny black, look white in oblique light

claspers of abd. feet pale, venter white
VII Oct 8 Black, but seems shiny, hair
short but ^{black} shiny yellow distinct. Sig
line broken into 4 dots the ant. & 2 pit
transverse yellow, the 2nd longitudinal
white a few s-v pale yellow dots
Head black, but venter more white
Hd 1.3 ±

Calc .35 .50 .73 1.05 1.5 2.1

491

2795

Callinorpha lecontei? (with Dr. Lintner 491)
eggs laid July 9. Like 490 but very
pale yellow and scarcely shiny. Relic-
tation evident small, pit like close
rounded, casting shadows in the
depressions. The principal difference is
that they are deeper and smaller. 8.7
Died without hatching. Head black over
apex, the clypeus pale. Body and
hair pale apparently closely similar
to 84490.

491A

Mrs. Slosson found larvae of the (?) on
Eupatorium in Sept 1896. They were
abundant. Some sent to her on
Sept 15. Hds 1.5 ± shiny black. Venter black
normal, hair short, and abundant
black & white. Body black, dorsal
line narrow broken yellow or partly
a wholly obscure whitish like sd
line; sty line broad, white in center

of seg. yellow ant. & broken into 2
trans yellow streaks on feet part.
S-S(v) and S-V(vi) very strongly connecting,
slightly joining the stig. line in some
places, whitish, the S-S slightly tinted
with yellow. Venter broadly gray white
joining S-V line in places (Francisville, VA)
[Hybernating by Sept 19] (died)

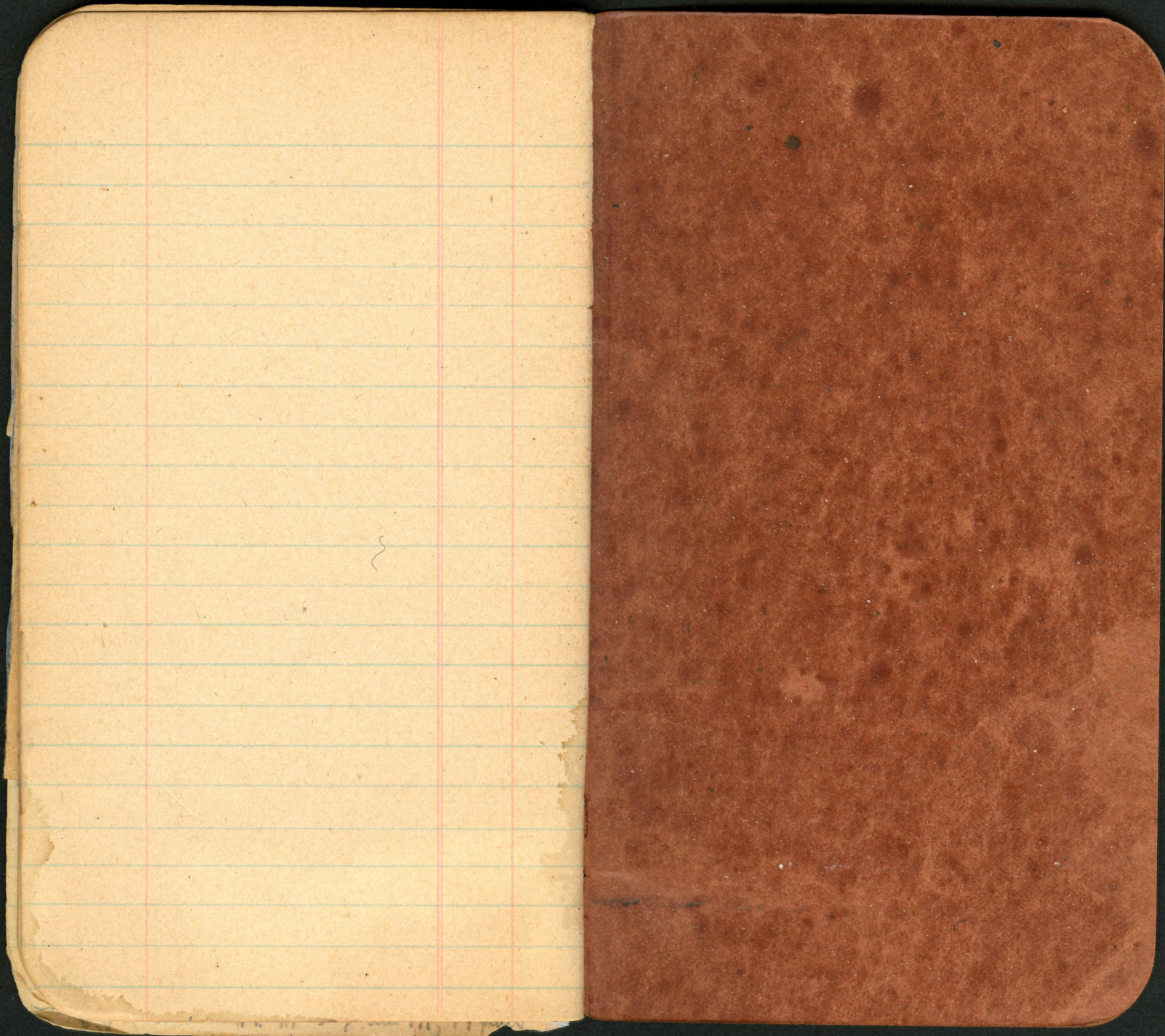
491 B

Larva found by Juntel at Fort Lee, Virginia,
feeding in the house March 6 1897. Had
shed once since found.

Black, d. line yellow, broken, faint and
subulate. Superstyg. line yellow, broken
into dots; substyg. narrow pubes-
cent, absolutely connecting to super-
styg. esp. on thorax by dots which
also reach down around v and vi.
Venter broadly pale gray, black
dotted. Hair black.

Shed Mar. 9 Head 2.7 shiny black. Body
black, venter blue black, legs reddish. Hair

short, stiff, gray red and white mixed.
Dorsal line of 2 red dashes between
i and ii resp. broken interseg. and in
middle of segs. No sd line, but a very
few pale mottled dots. Superstyg.
band broken into several transverse
streaks, orange red in the middle of segs.
white in incisures, deep yellow on
thorax. Substigmatal band composed of
numerous deep yellow dots, diffuse,
running iv-vi, powdery, not a con-
nected band. Venter broadly pale
gray, black dotted. D. line whitish
& faint on thorax. Found Hyb. in IV



Wm. H. Brown
with
Sister & family